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a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to monitor a user's usage of an interface of a target application, the interface comprising a plurality of operations to be selected by a user, comprising:

a first computer code device configured to directly monitor user selections of the plurality of operations of the interface by the user, and configured to generate a log of the monitored data, the log indicating the selections of the plurality of operations by the user; and

a second computer code device configured to communicate the log of the monitored data to a remote site.

REMARKS

Favorable reconsideration of this application, in view of the following comments and as presently amended, is respectfully requested.

Initially, applicants again note that an Information Disclosure Statement (IDS) was filed March 1, 2001, which at this time has not been acknowledged as considered. A copy of that previously filed Information Disclosure Statement was also filed with the Response filed March 11, 2002. Confirmation of consideration of that IDS is requested.

Claims 1-28 are pending in this application. Claims 1-3, 5-10, 12-17, 19-24, and 26-28 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. 6,202,199 B1 to Wygodny et al. (herein "Wygodny"). Claims 4, 11, 18, and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wygodny in view of U.S. 5,790,117 to Halviatti et al. (herein "Halviatti").

Addressing now the rejection of claims 1-3, 5-10, 12-17, 19-24, and 26-28 under 35 U.S.C. § 102(e) as anticipated by Wygodny, that rejection is traversed by the present response.

It is initially noted that each of the independent claims is amended by the present response to clarify a feature recited therein. Specifically, each of the independent claims now clarifies that the log of the monitored data is communicated "to a remote site". That subject matter is supported by the original specification as the specification indicates that a target application can have its user's usage monitored and then communicated to a desired location by Internet e-mail.² It is clear that such a desired location communicated to by Internet e-mail may be a remote location. That is also evident from the specification indicating that the interface being monitored may be in a device such as a copying machine, printer, facsimile, scanner, an appliance such as a microwave oven, etc.³

The above-noted feature recited in the claims of communicating a log of monitored data to a remote site clearly distinguishes over the teachings in Wygodny. To meet the limitations of just communicating a log of monitored data the outstanding Office Action cites the teachings in Wygodny at column 11, lines 52-67, and at column 12, lines 1-6.⁴ However, such teachings in Wygodny do not address the claimed communication.

At column 11, line 52-column 12, line 6, Wygodny merely discloses displaying a list of all applications that are currently running, but Wygodny is completely silent as to any

²See the specification at page 3, lines 17-19.

³See the specification at page 3, lines 2-17.

⁴Office Action of June 5, 2002, page 3, lines 2-4.

operation of performing any operation even similar to communicating a log of monitored data to a remote site.

It is also noted that such a deficiency in Wygodny stems from the fact that the device of Wygodny is directed to a different device with different objectives than that in the claimed invention.

The claimed invention is designed to monitor how a user utilizes an interface, such as a graphical user interface as one non-limiting example. Wygodny, in contrast to the claimed invention, is directed to debugging a program, and thus Wygodny is not concerned with directly monitoring user selections of an interface, or communicating a log of the monitored usage to a remote site, but instead is only concerned with how a program is being executed.

According to the invention recited in the claims an interface, such as a computer screen, an LCD touch pad for a copying machine, etc., includes a plurality of operations that can be selected by a user. A monitoring unit directly monitors the user selections of the plurality of operations. A log of the monitored data indicating the selections of the plurality of operations by the user is then generated, and that log can be communicated to a remote site.

With such a system in the claimed invention exactly what operations of an interface a user selects can be simply and easily monitored. Such features in the claimed invention are neither taught nor suggested by Wygodny.

Wygodny, in further detail, is directed to a software system that facilitates the process of identifying and isolating bugs within a client program by allowing a developer to retrace the execution paths of the client.⁵ In that aspect the client in the device of Wygodny is the

⁵Wygodny at column 2, lines 53-56.

program to be traced.⁶ Thereby, Wygodny teaches a process of using a monitoring program to monitor and record information about the execution of the client, i.e., the program to be traced, while the client is running.⁷ To achieve the above operation Wygodny utilizes a program referred to as a bug trapper analyzer 106 to create a trace control information (TCI) file 120.⁸

The claimed invention directly monitors actual user selections of a plurality of operations. As one non-limiting example, if a graphical user interface is put on a computer screen the claimed invention can monitor the commands in the graphical user interface a user selects. The claimed invention achieves that operation by actually monitoring the user selections *directly*. In contrast to the claimed invention, Wygodny does not directly monitor user selections, but instead only monitors a program while it is running. That is, in Wygodny the running and execution of a program is monitored.

In contrast to Wygodny, in the claimed invention the *user selections* of an operation on an interface of a target application are *directly monitored*.

In maintaining the outstanding rejection the outstanding Office Action also cites the teachings in Wygodny at column 5, lines 15-24, and specifically that Wygodny states “[t]he system can also be used in an online mode wherein the developer can interactively trace a program and view the trace results in real time”. However, what the outstanding Office Action is misinterpreting is that in even that operation in Wygodny what is being monitored is the program execution, and not the direct monitoring of a user selection of a plurality of

⁶Wygodny at column 5, lines 28-31.

⁷Wygodny at column 4, lines 54-57.

⁸Wygodny at column 5, lines 25-28.

operations or an interface. That is, even in the above-noted feature in Wygodny user selections are not being directly monitored. Instead, in Wygodny the *program execution* of the user selection is being traced. That trace of how a program is executing is not the same as directly monitoring a user selection of a plurality of operations.

Further, Wygodny discloses a device that emphasizes the debugging and tracing of an execution of a computer program. In contrast to Wygodny the claimed invention is directed to monitoring how a user utilizes an interface, such as a graphical user interface as one non-limiting example. The claimed invention does not address tracing and debugging of a program as the claimed invention is only concerned with how a user is making selections on an interface.

In Wygodny a software developer is the user, rather than a user who actually utilizes an interface. Since the developer is the user, Wygodny does not have any monitoring for a user (developer) section. In Wygodny the developer is only interacting with the debugging program and not with any other program.

Further, Wygodny cannot be interpreted so that the client is the "user" as in Wygodny the system is not monitoring the client selection of the plurality of the operations. Instead in Wygodny the system is monitoring the application software. That is, Wygodny is tracing the execution of the program and not directly monitoring user selections of an operation on an interface of a target application.

Further, it is also the case that in Wygodny the client application may not have any user interface, such as in the case of service programs such as TCP, IP, SMTP, SNMP, etc. That thereby emphasizes that the device in Wygodny is not concerned with directly

monitoring user selections of an operation on an interface as a client application Wygodny may not even have an interface.

In such ways, each of the independent claims, and the claims dependent therefrom, clearly distinguish over the teachings in Wygodny.

Moreover, it is also noted that the dependent claims have not been properly considered and even further distinguish over the teachings in Wygodny.

(V) With respect to Claims 2, 9, 16, and 23, which further recite "the target application is a software application and the interface is a display screen of the software application", Wygodny further fails to teach or suggest that further limitation. The outstanding Office Action notes the teachings in Wygodny at column 8, lines 21-32, to meet such limitations. However, at that portion Wygodny merely indicates a system for the developer to utilize debug information. In Wygodny the interface of the analyzer 106 is not the software interface of the software that runs at the client site. The outstanding rejection appears to indicate that the analyzer 106 can also be qualified to be a target application software. However, if that was the case then for Wygodny to meet the claimed limitations at least the clicking of the analyzer 106 should be tracked and stored in a log file, which is not done in Wygodny. In Wygodny instead trace information of the software running at the client site is monitored,

Further, with respect to Claims 3, 10, 17, and 24, no teachings in Wygodny at column 9, lines 9-61, or at column 8, lines 28-38, even address similar subject matter. At column 9, lines 9-61, Wygodny addresses an executable image. That executable image is a binary compile code and data associated with the program. There is no description whatsoever in that portion of Wygodny as to an "image forming device", which can be a device such as a copier machine as discussed in the present specification. Further, at column 28, lines 18-38,

Wygodny describes a trace point and a bug trapper, which also is completely unrelated to an "image forming device" and "operation panel".

With respect to Claims 5, 12, 19, and 26, no teachings in Wygodny at column 5, lines 25-53, even address similar subject matter. That is, that portion of Wygodny does not even remotely indicate sending a log of monitored data when a user exits a target application. That clearly results because Wygodny is not even concerned with communicating a log of monitored data to a remote site.

With respect to Claims 6, 13, 20, and 27, no teachings in Wygodny at column 20, lines 53-56, or at column 30, lines 21-23, even address similar subject matter. At column 20, lines 53-56, Wygodny discusses a time stamp and does not even address the issue of "a number of sessions". Further, column 30, lines 21-33, of Wygodny are completely irrelevant to setting a number of sessions of a target application to be executed by a user.

Further, with respect to Claims 7, 14, 21, and 28, at column 15, lines 17-30, and at column 26, lines 31-43, Wygodny does not even address or even hint to communicating a log of monitored data to a remote site "by Internet mail". It is completely unclear on what basis those teachings in Wygodny are even being cited as they do not address or even allude to the concept of "Internet mail".

In such ways, the dependent claims even further distinguish over the teachings of Wygodny.

Addressing now the further rejection of claims 4, 11, 18, and 25 under 35 U.S.C. § 103(a) as unpatentable over Wygodny in view of Halviatti, that further rejection is traversed by the present response.

First, Halviatti cannot overcome any of the above-noted deficiencies of Wygodny with respect to the independent claims from which dependent claims 4, 11, 18, and 25 depend.

It is further noted that the teachings in Halviatti have no relevance to the teachings in Wygodny and are not properly applicable to the teachings in Wygodny. As noted above Wygodny is not directed to a device that monitors a target interface, but instead is directed to a device that debugs a computer program. The broad teachings in Halviatti to an interface of an operation panel of an appliance are completely unrelated to the system or objective of the device to Wygodny. Thus, one of ordinary skill in the art would not incorporate any teachings in Halviatti in the device of Wygodny, in contrast to the position in the Office Action. Thus, for these further reasons claims 4, 11, 18, and 25 even further distinguish over the applied art.

In view of these foregoing comments, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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IN THE CLAIMS

--1. (Twice Amended) A system comprising:

an interface of a target application, the interface comprising a plurality of operations to be selected by a user;

a monitoring unit configured to directly monitor user selections of the plurality of operations of the interface by the user, and to generate a log of the monitored data, the log indicating the selections of the plurality of operations by the user;

a communicating device configured to communicate the log of the monitored data to a remote site.

8. (Twice Amended) A system comprising:

interface means of a target application means, the interface means for providing a plurality of operations to be selected by a user;

monitoring means for directly monitoring user selections of the plurality of operations of the interface means by the user, and for generating a log of the monitored data, the log indicating the selections of the plurality of operations by the user;

communicating means for communicating the log of the monitored data to a remote site.

15. (Twice Amended) A method of monitoring usage of an interface of a target application, the interface including a plurality of operations to be selected by a user, comprising the steps of:

directly monitoring user selections of the plurality of operations of the interface by the user;

generating a log of the monitored data, the log indicating the selections of the plurality of operations by the user; and

communicating the log of the monitored data to a remote site.

22. (Twice Amended) A computer program product comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to monitor a user's usage of an interface of a target application, the interface comprising a plurality of operations to be selected by a user, comprising:

a first computer code device configured to directly monitor user selections of the plurality of operations of the interface by the user, and configured to generate a log of the monitored data, the log indicating the selections of the plurality of operations by the user; and

a second computer code device configured to communicate the log of the monitored data to a remote site.--